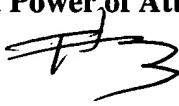


Combined Declaration and Power of Attorney for Patent Application

Docket Number: 1744.0010009


As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter that is claimed and for which a patent is sought on the invention entitled **Method and System for Down-Converting an Electromagnetic Signal, Transforms for Same, and Aperture Relationships**, the specification of which is attached hereto unless the following box is checked:

- was filed on April 14, 2000;
as United States Application Number or PCT International Application Number 09/550,644; and
was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

| Prior Foreign Application(s) | Priority Claimed |
|------------------------------|--|
| (Application No.) | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| (Country) | (Day/Month/Year Filed) |

| | | |
|-------------------|-----------|--|
| (Application No.) | (Country) | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | (Day/Month/Year Filed) |

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

| | |
|-------------------|---------------|
| (Application No.) | (Filing Date) |
| | |

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

| | | |
|--|--|--|
| <u>09/176,022</u> (Application No.) | <u>October 21, 1998</u> (Filing Date) | <u>patented</u> (Status - patented, pending, abandoned) |
| <u>09/293,342</u> (Application No.) | <u>April 16, 1999</u> (Filing Date) | <u>pending</u> (Status - patented, pending, abandoned) |
| <u>09/521,879</u> (Application No.) | <u>March 9, 2000</u> (Filing Date) | <u>pending</u> (Status - patented, pending, abandoned) |

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Robert G. Sterne, Esq., Reg. No. 28,912; Edward J. Kessler, Esq., Reg. No. 25,688; Jorge A. Goldstein, Esq., Reg. No. 29,021; Samuel L. Fox, Esq., Reg. No. 30,353; David K.S. Cornwell, Esq., Reg. No. 31,944; Robert W. Esmond, Esq., Reg. No. 32,893; Tracy-Gene G. Durkin, Esq., Reg. No. 32,831; Michele A. Cimbala, Esq., Reg. No. 33,851; Michael B. Ray, Esq., Reg. No. 33,997; Robert E. Sokohl, Esq., Reg. No. 36,013; Eric K. Steffe, Esq., Reg. No. 36,688; Michael Q. Lee, Esq., Reg. No. 35,239; Steven R. Ludwig, Esq., Reg. No. 36,203; Raz E. Fleshner, Esq., Reg. No. 34,331; John M. Covert, Esq., Reg. No. 38,759; and Linda E. Alcorn, Esq., Reg. No. 39,588.

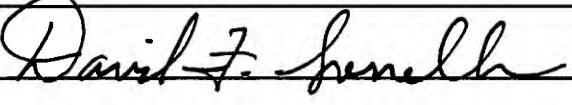
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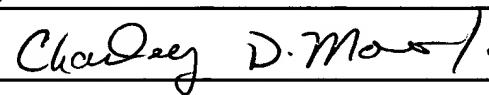
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 New York Avenue, N.W.
Suite 600
Washington, D.C. 20005-3934

Direct Telephone Calls to:

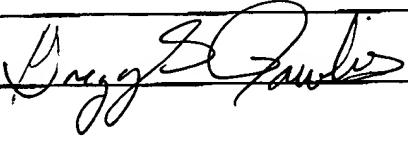
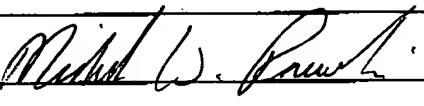
(202) 371-2600

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

| | | |
|------------------------------|--|------------------|
| Full name of first inventor | David F. SORRELLS | |
| Signature of first inventor |  | Date 08/01/00 |
| Residence | Jacksonville, Florida | |
| Citizenship | U.S.A. | |
| Post Office Address | 5250 Siesta Rio Drive South, Jacksonville, Florida 32258 | |
| | | |
| Full name of second inventor | Michael J. BULTMAN | |
| Signature of second inventor |  | Date 1 AUG 00 |
| Residence | Jacksonville, Florida | |
| Citizenship | U.S.A. | |
| Post Office Address | 2244 Aztec Drive West, Jacksonville, Florida 32246 | |

| | |
|--|--------------------|
| Full name of third inventor Robert W. COOK | |
| Signature of third inventor  | 8/1/00 Date |
| Residence Switzerland, Florida | |
| Citizenship U.S.A. | |
| Post Office Address 1432 Roberts Road, Switzerland, Florida 32259 | |
| | |
| Full name of fourth inventor Richard C. LOOKE | |
| Signature of fourth inventor  | July 27, 2000 Date |
| Residence Jacksonville, Florida | |
| Citizenship U.S.A. | |
| Post Office Address 3170 Ricky Drive, Jacksonville, Florida 32223 | |
| | |
| Full name of fifth inventor Charley D. MOSES, Jr. | |
| Signature of fifth inventor  | 8-1-2000 Date |
| Residence Jacksonville, Florida | |
| Citizenship U.S.A. | |
| Post Office Address 4314 Naranja Drive, Jacksonville, Florida 32217 | |
| | |

Appl. No. 09/550,644
Docket No. 1744.0010009

| | | |
|--|--|------------------------|
| Full name of seventh inventor Gregory S. RAWLINS | Signature of seventh inventor  | Date 7/31/00 |
| Residence Lake Mary, Florida | | |
| Citizenship U.S.A. | | |
| Post Office Address 299 Leslie Lane, Lake Mary, Florida 32746 | | |
| | | |
| Full name of sixth inventor Michael W. RAWLINS | Signature of sixth inventor  | Date 7/26/00 |
| Residence Lake Mary, Florida | | |
| Citizenship U.S.A. | | |
| Post Office Address 665 Brightview Drive, Lake Mary, Florida 32746 | | |
| | | |

M:\USERS\VBESTON\1744.0010009\DECLARATION
S007 Rev. 10/29/99

(Supply similar information and signature for subsequent joint inventors, if any)

POWER OF ATTORNEY FROM ASSIGNEE

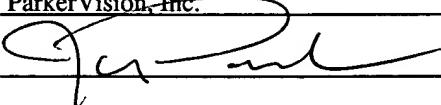
ParkerVision, Inc., a corporation of Florida, having a principal place of business at 8493 Baymeadows Way, Jacksonville, Florida 32256, is assignee of the entire right, title and interest for the United States of America (as defined in 35 U.S.C. § 100), by reason of an Assignment to the Assignee executed on (1) 8-1-00, (2) 8-1-00, (3) 8-1-00, (4) 1-2-00(5) 8-1-00, (6) 7-31-00, and (7) 7-26-00, of an invention known as Method and System for Down-Converting an Electromagnetic Signal, Transforms for Same, and Aperture Relationships (Attorney Docket No. 1744.0010009), which is disclosed and claimed in a patent application of the same title by the inventors (1) David F. Sorrells, (2) Michael J. Bultman, (3) Robert W. Cook, (4) Richard C. Looke, (5) Charley D. Moses, Jr., (6) Gregory S. Rawlins, and (7) Michael W. Rawlins (said application filed on April 14, 2000 at the U.S. Patent and Trademark Office, having Application Number 09/550,644).

The Assignee hereby appoints the following U.S. attorneys to prosecute this application and any continuation, divisional, continuation-in-part, or reissue application thereof, and to transact all business in the U.S. Patent and Trademark Office connected therewith: Robert Greene Sterne, Esq., Reg. No. 28,912; Edward J. Kessler, Esq., Reg. No. 25,688; Jorge A. Goldstein, Esq., Reg. No. 29,021; Samuel L. Fox, Esq., Reg. No. 30,353; David K.S. Cornwell, Esq., Reg. No. 31,944; Robert W. Esmond, Esq., Reg. No. 32,893; Tracy-Gene G. Durkin, Esq., Reg. No. 32,831; Michele A. Cimbala, Esq., Reg. No. 33,851; Michael B. Ray, Esq., Reg. No. 33,997; Robert E. Sokohl, Esq., Reg. No. 36,013; Eric K. Steffe, Esq., Reg. No. 36,688; Michael Q. Lee, Esq., Reg. No. 35,239; Steven R. Ludwig, Esq., Reg. No. 36,203; Raz E. Fleshner, Esq., Reg. No. 34,331; John M. Covert, Esq., Reg. No. 38,759; and Linda E. Alcorn, Esq., Reg. No. 39,588. The Assignee hereby grants said attorneys the power to insert on this Power of Attorney any further identification that may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

Send correspondence to:

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 New York Avenue, N.W.
Suite 600
Washington, D.C. 20005-3934
U.S.A.

Direct phone calls to 202-371-2600.

FOR: ParkerVision, Inc.
SIGNATURE: 
BY: Jeffrey L. Parker
TITLE: Chairman and Chief Executive Officer
DATE: 8-3-00

P:\USERS\WBEASTON\1744.0010009\ASSIGNEE.POA

Certificate Under 37 C.F.R. § 3.73(b)

Applicants/Patent Owner: Sorrells et al.

Application No./Patent No.: 09/550,644 Filed/Issue Date: April 14, 2000

Entitled: **Method and System for Down-Converting an Electromagnetic Signal, Transforms for Same, and Aperture Relationships**

ParkerVision, Inc., a Florida corporation,
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. [X] the assignee of the entire right, title, and interest, or
2. [] an assignee of an undivided part interest

in the patent application/patent identified above by virtue of either:

A. [X] An Assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

OR

B. [] A chain of title from the inventor(s) of the patent application/patent identified above to the current assignee as shown below:

1. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.
2. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.
3. From: _____ To: _____
The document was recorded in the Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

[] Additional documents in the chain of title are listed on a supplemental sheet.

[X] Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (*i.e.*, the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the PTO. See MPEP 302-302.8]

The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

Date: 8-3-00

Name: Jeffrey L. Parker

Title: Chairman and Chief Executive Officer

Signature: 

The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sodahl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 37,239; Steven R. Ludwig, Esquire, Registration No. 36,203; Raz E. Fleshner, Esquire, Registration No. 34,331; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned on the date(s) opposite their name(s).

Date: 08/01/00 Signature of Inventor: David F. Sorrells
David F. Sorrells

Date: 1 Aug 00 Signature of Inventor: M.J. Bultman
Michael J. Bultman

Date: 8/11/00 Signature of Inventor: Robert W. Cook
Robert W. Cook

Date: July 27, 2000 Signature of Inventor: R.C. Looke
Richard C. Looke

Date: Aug 1, 2000 Signature of Inventor: Charley D. Moses
Charley D. Moses, Jr.

Date: _____ Signature of Inventor: _____
Gregory S. Rawlins

Date: _____ Signature of Inventor: _____
Michael W. Rawlins

P:\USERS\WBEASTON\1744.0010009\ASSIGNMENT

ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): (1) David F. Sorrells, (2) Michael J. Bultman, (3) Robert W. Cook, (4) Richard C. Looke, (5) Charley D. Moses, Jr., (6) Gregory S. Rawlins, and (7) Michael W. Rawlins, the undersigned inventor(s) hereby sell(s) and assign(s) to ParkerVision, Inc. (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) for the United States of America (as defined in 35 U.S.C. § 100),
 and throughout the world,

(a) in the invention(s) known as **Method and System for Down-Converting an Electromagnetic Signal, Transforms for Same, and Aperture Relationships** for which application(s) for patent in the United States of America has (have) been executed by the undersigned on (1) 8-1-00; (2) 8-1-00; (3) 8-1-00; (4) 7-27-00; (5) 8-1-00; (6) 7-31-00 and (7) 7-26-00; (also known as United States Application No. 09/550,644, filed

April 14, 2000, in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventor(s) hereby grant(s) Robert Greene Stern, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Kay, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,289; Steven R. Ludwig, Esquire, Registration No. 36,203; Raz E. Fleshner, Esquire, Registration No. 34,931; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned on the date(s) opposite their name(s).

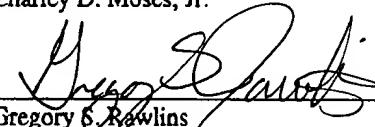
Date: _____ Signature of Inventor: _____
David F. Sorrells

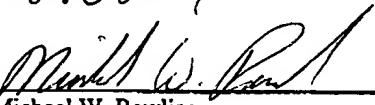
Date: _____ Signature of Inventor: _____
Michael J. Bulman

Date: _____ Signature of Inventor: _____
Robert W. Cook

Date: _____ Signature of Inventor: _____
Richard C. Looke

Date: _____ Signature of Inventor: _____
Charley D. Moses, Jr.

Date: 7/31/00 Signature of Inventor: 
Gregory S. Rawlins

Date: 7/26/00 Signature of Inventor: 
Michael W. Rawlins

P:\USERS\VB\BASTON\1744.0010009\ASSIGNMENT